

ABSTRACT

Drug delivery systems and kits are provided that release an anesthetic, such as bupivacaine, over a short duration. Methods of administering and preparing such systems are also provided. Drug delivery systems include a short duration gel vehicle and an anesthetic dissolved or dispersed in the gel vehicle. The gel vehicle comprises a low molecular weight bioerodible, biocompatible polymer and a water-immiscible solvent in an amount effective to plasticize the polymer and form a gel with the polymer. In some instances, a component solvent is used along with the water-immiscible solvent. An efficacy ratio, which is one way to measure the efficacy of a delivery system, can be controlled based on, for example, the construction of the gel vehicle to achieve a desired release profile.